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## Preliminary associations among relational victimization, targeted rejection, and suicidality in adolescents: A prospective study

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### Abstract

**Objective:** This study examined associations between multiple types of interpersonal and non-interpersonal stressors and the subsequent occurrence of suicide ideation and attempts among adolescent females.

**Method:** Adolescents aged 12 to 18 ( $n = 160$ ) at elevated risk for suicidal thoughts and behaviors were followed for eighteen months, divided into two nine-month epochs for data analysis (Periods 1, 2). Exposure to acute relational victimization, targeted rejection, non-specified interpersonal, and non-interpersonal life stressors over the first nine-month epoch (Period 1) was assessed using semi-structured interviews and an independent life stress rating team. Participants also completed phone-based semi-structured interviews of suicidal thoughts and behaviors.

**Results:** Preliminary analyses showed significant prospective associations between acute targeted rejection and non-specified interpersonal stress during Period 1 and suicide ideation during Period 2, as well as relational victimization and non-interpersonal stress during Period 1 and suicide attempts during Period 2. However, in logistic regression analyses that adjusted for prior suicidality and depressive symptoms, relational victimization during Period 1 (but not targeted rejection, non-specified interpersonal or non-interpersonal events) was associated with increased odds of suicide attempt during Period 2.

**Conclusion:** Acute relational victimization exposure is associated with heightened risk for suicidal behaviors in adolescent females. Future studies should examine potential mediators and moderators of this association, and these stressors should be considered for inclusion in clinical screening tools.

## Keywords

suicide; interpersonal stress; relational victimization; targeted rejection; social rejection

Suicide risk increases 17-fold between preadolescence (ages 10–14) and adolescence (15–24) (Boeninger, Masyn, Feldman, & Conger, 2010). These risks are higher among adolescent females, who are 1.6 times more likely than boys to attempt suicide (CDC, 2014). Given the lack of longitudinal research in this area, as well as little improvement in predicting adolescent suicidality over the last 50 years (Franklin et al., 2017), more studies are needed to identify specific risk factors for adolescent suicide (CDC, 2014).

One risk factor perhaps especially relevant for adolescent females is interpersonal stress. Neurodevelopmental theories suggest that pubertal changes promote heightened neurobiological sensitivity to social/emotional stimuli, particularly among females (Somerville, 2013). Gender socialization theories also suggest that adolescent females show greater investment in close relationships (Rose & Rudolph, 2006). Supporting these frameworks, interpersonal stress is a strong prospective predictor of adolescent girls' suicide ideation and perhaps particularly suicide attempts (King & Merchant, 2008). Although links between suicide and numerous interpersonal stressors have been established (e.g., bullying, intimate partner violence; Holt et al., 2015; van Dulmen et al., 2012), few studies examine the extent to which certain types of interpersonal stressors are most pertinent to suicide, leaving implications for prevention vague. In the present study, we focused on two interpersonal stressors that may be particularly relevant to suicidal behavior: relational victimization and targeted social rejection.

Prior definitions are inconsistent, yet, contemporary research defines relational victimization as being the recipient of behaviors that use interpersonal relationships to cause psychological (non-physical/overt) harm (Crick & Grotpeter, 1995). These behaviors may threaten victims' reputations (e.g., reputational victimization; includes gossip, rumor-spreading, teasing, or social exclusion) or removal of relationships (e.g., "silent treatments, social exclusion). Relational victimization can be direct/verbal (e.g., "You can't come to my birthday party") or indirect (e.g., spreading malicious lies about a peer), though indirect forms are most common in adolescence, especially among females (Rudolph, Troop-Gordon, Monti, & Miernicki, 2014). Compared to bullying, relational victimization does not require temporal repetition and power imbalance (Ostrov et al., in press).

Although several studies have examined associations between peer victimization (or related constructs, such as bullying, relational aggression, intimate partner violence) and suicidality (Holt et al., 2015; van Dulmen et al., 2012), relatively few have considered relational victimization as a unique prospective predictor of suicidal thoughts and behaviors; instead, most have used a unitary construct of peer victimization (e.g., Geoffroy et al., 2016; Gini, Card, & Pozzoli, 2017) and cross-sectional designs. Among concurrent studies, results are mixed, with several supporting a link between relational victimization and suicidality and others revealing no significant associations (Arango, Opperman, Gipson, & King, 2016; Dempsey, Haden, Goldman, Sivinski, & Wiens, 2011; Heilbron & Prinstein, 2010; Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2008). Some evidence suggests that relational

victimization may be more strongly associated with suicide attempts compared to ideation, especially among females (Barzilay et al., 2017; Stewart, Valeri, Esposito, & Auerbach, 2017). Longitudinal research, particularly predicting attempts, also has yielded mixed results. However, preliminary analyses using self-report measures of stress supported a prospective link between relational victimization and suicide ideation in females but not males (Tsypes & Gibb, 2015).

In addition to relational victimization, relationship break-ups are a common precipitant for suicide in adolescence (Prinstein, 2003). Recent research conceptualizes important relationship terminations in the context of a broader construct, targeted rejection. This type of social rejection is directed at, and meant to affect, a single person, and involves an active and intentional severing of relational ties (Slavich, Thornton, Torres, Monroe, & Gotlib, 2009). Targeted rejection can occur in multiple life domains, including: peer (i.e., getting kicked out of a peer group) and romantic (e.g., romantic partner break-up).

Although no studies have examined targeted rejection in the context of suicide, prior work has indicated that romantic partner breakups commonly precipitate adolescent suicide attempts (Donald, Dower, Correa-Velez, & Jones, 2006). In a recent study, major loss events (i.e., romantic relationship break-up, child estrangement) were related to subsequent increases in suicide ideation among inpatient adolescents after controlling for other risk factors (Daniel, Goldston, Erkanli, Heilbron, & Franklin, 2017). Notably, interpersonal “losses” do not denote who initiates the end of a relationship; given that victims of targeted rejection are the target of termination, these experiences may be especially damaging. Indeed, recent evidence suggests that experiencing a recent severe targeted rejection life event substantially hastens onset of depression (Slavich et al., 2009).

The focus of the current study was to examine the contribution of specific types of acute, interpersonal stressors to the occurrence of suicidal thoughts and behaviors. The stringent examination of interpersonal stress in this study accounts for several methodological limitations in prior work (Liu & Miller, 2014). First, measurement of interpersonal stress has generally been broad, encompassing multiple types in one construct (e.g., family arguments, romantic break-ups, peer conflict). Thus, the aspects of interpersonal stress that are most predictive of suicidal thoughts or behaviors remain less known. Second, the quality of measures varies, with most studies using self-report checklists that are vulnerable to reporting biases. Third, investigators rarely identify stressors that predict suicide outcomes beyond the effects of depression. Finally, despite prior work highlighting the importance of acute stressors in the occurrence of suicidal thoughts and behaviors, many studies do not consider the objective stress severity of life events (Monroe, Slavich, & Georgiades, 2009).

Given the wide range of psychopathology associated with suicide risk (Nock & Kessler, 2006), participants included a heterogeneous sample of adolescent females at risk for suicidality, offering an opportunity to examine these hypotheses within a sample offering maximal clinical application. A prospective design and semi-structured interview assessment of life stress were used to address limits of previous studies. It was hypothesized that higher levels of acute relational victimization and targeted rejection stress would predict prospective suicide ideation and attempts, above and beyond the effects of stress from other

acute non-specified interpersonal stress and non-interpersonal stress, demographic factors, and prior depression and suicidality.

## Method

### Participants

Participants were 160 adolescent females with a recent history of mental health concerns, and thus at elevated risk for suicidality, between the ages of 12 and 16 ( $M=14.60$ ,  $SD=1.40$ ; 63.8% European American, 24.4% African-American, 1.3% Asian-American, 10.6% multiracial; 6.3% Hispanic/Latina). Of an original sample of 220 adolescents, 57 were excluded from the current analyses due to missing life stress data (i.e., inability to contact 31 participants, 23 refused, and 3 study withdrawals). Additional participants ( $n=3$ ) were missing suicide ideation/attempt outcome data. Participants included vs. excluded from analyses ( $n=60$ ) did not differ in age, minority status, depressive symptoms, suicidality, or stress exposure at baseline (all  $ps > .15$ ,  $d < .10$ ).

### Recruitment

Participants were referred from local inpatient psychiatric units, outpatient clinics, community mental health agencies, high schools, and community advertisements. Eligibility criteria included: (1) female gender; (2) 12 to 16 years old; and (3) a history of mental health concerns in the prior two years, defined as having any prior (1) psychiatric diagnosis; (2) mental health treatment; or (3) experience of elevated symptoms, as indicated by parents' report on a modified KSADS-PL screener administered at the time of recruitment (KSADS-PL; Kaufman, Birmaher, Brent, & Rao, 1997). The sample was heterogeneous in terms of mental health concerns, with 18.4% endorsing clinically elevated scores on conduct disorder scales, 13.5% on attention problems, 15.3% on hyperactivity, 11% on anxiety, and 8.3% on depression scales (per caregiver report on the Behavioral Assessment System for Children (BASC-PRS; Reynolds & Kamphaus, 1992). Exclusion criteria included: active psychosis, pervasive developmental disorder, or intellectual disability.

### Procedures

Adolescents' participation in the study occurred over an 18-month period, divided into two nine-month epochs, referred to herein as Periods 1 and 2. Caregiver informed consent and adolescent assent were obtained during a laboratory visit at the start of Period 1. At the end of Period 1, participants completed a phone-based semi-structured interview that assessed adolescents' life stressors over the first nine-month period and self-report questionnaires assessing recent depressive symptoms. To ensure accurate reporting of suicidal thoughts and behaviors during each epoch, phone-based interviews were conducted every three months within Period 1 and Period 2. Risk procedures based on those outlined by Helms and Prinstein (2014) were employed for all safety concerns. Participants were offered gift cards as compensation for participation. All procedures were approved by the university human subjects committee.

## Measures

### Acute Interpersonal Stress, Relational Victimization, and Targeted Rejection.

—The semi-structured Youth Life Stress Interview (Rudolph & Flynn, 2007) was administered at the end of Period 1 to assess the occurrence of negative life events over the prior nine months. Two masked raters probed for the nature and surrounding context of stressors using semi-structured follow-up questions. A team assigned objective stress ratings to each event on a scale from 1 (*No Stress*) to 5 (*Severe Stress*). Events with ratings of 1 were excluded from analyses. This approach is based on the contextual thread method (Brown & Harris, 1978), which involves using objective information and independent judges to assess event severity and offers an advantage over mood-congruent, subjective self-reports. Consistent with prior studies highlighting the relevance of major life events to psychological distress (Monroe et al., 2009), only events with an objective stress rating of 2.5 or higher were included in analyses<sup>1</sup> (see Murphy, Slavich, Chen, & Miller, 2015; Uliaszek et al., 2012).

All events were coded into two mutually exclusive categories: (1) interpersonal events, or stressors that involve relationships with other people (e.g., argument, break-up of relationship) or affect the participants' relationships with other people (e.g., a significant figure moves away or becomes ill) (Shih, Eberhart, Hammen, & Brennan, 2006); and (2) non-interpersonal events (i.e., did not meet criteria for interpersonal stress). Coding was conducted by a team of two graduate students with extensive experience coding LSI interviews (Cohen's  $\kappa=.85$ ). Each interpersonal event was coded as relational victimization, targeted rejection, or other interpersonal stressors (non-specified)<sup>2</sup>. All stress variables were computed by summing objective stress scores for life events with objective stress ratings of 2.5 or higher.

**Suicidal Thoughts and Behavior.**—Suicidal ideation and attempts were assessed using the Self-Injurious Thoughts and Behaviors Interview (SITBI; Nock, Holmberg, Photos, & Michel, 2007). This structured clinical interview provides a comprehensive assessment of several aspects of suicidality. In the present analyses, suicidality was measured through two, dichotomous indicators of (1) suicidal ideation and (2) suicide attempts. To facilitate

<sup>1</sup>Prior work offers multiple ways of measuring life stress, including a total score for objective stress ratings across all events or only among acute life stress events (i.e., with objective stress ratings of 2.5 or higher included). Only major life events were included in the present analyses based on prior work demonstrating the particular relevance of "severe" life events to mental health outcomes (Monroe & Hadjiyannakis, 2002). Models in the current study were also run without applying a stress threshold (i.e., including acute and non-acute events), yielding an identical pattern of significant results.

<sup>2</sup>Based on definitions from prior research (Crick & Grotpeter, 1995), interpersonal life events involving the receipt of behaviors that threatened one's relationships (e.g., "silent treatments") or social reputation (e.g., gossip, rumor-spreading, teasing or social exclusion) were coded as relational victimization (e.g., getting laughed at by a group of kids, being excluded from a friend's party). Negative comments in the context of dyadic arguments (i.e., verbal aggression) were not sufficient to be coded relational victimization. Overt forms of victimization (i.e., physical threat and harm) were not examined as a discrete category of interpersonal stress due to infrequent occurrence in this sample ( $n=13$  events or 0.7% of all stressors). Targeted rejection was coded as meeting all six of the following criteria (Slavich et al., 2009): (1) The participant was the primary target of the event; (2) the participants' rejection by another person or group of persons was the most salient feature of the event; (3) the rejection event was characterized by a clear intent to reject the subject (i.e., does not result from inaction or negligence); (4) the event was characterized by isolated impact in which only the target individual experienced the rejection; (5) the rejection event entailed a break in the relationship, or severing of relational ties; and (6) the break in relational ties had to last at least two weeks. Notably, no stressors with objective stress ratings greater than 2.5 involved breaks in relational ties lasting under two weeks. Targeted rejection events could only occur within the context of close, established relationships, and could involve multiple interpersonal domains (i.e., peer, family, or school). Sample targeted rejection events from the current study included getting "broken up with" by a friend or romantic partner. Reliability among coders was established (Cohen's  $\kappa=.80$ ).



accurate suicidality reporting, three assessments within the first epoch (Period 1) and second epoch (Period 2) of suicidal ideation (i.e., “Have you ever had thoughts of killing yourself?”) and suicide attempts (i.e., “Have you ever made an actual attempt to kill yourself in which you had at least some intent to die?”) were included. Outcome variables included any suicidal ideation or attempts reported during Period 2. The SITBI has shown good interrater reliability among adolescents and young adults ( $\kappa = 0.99$ ), test-retest reliability over 6 months ( $\kappa = 0.70$ ), and strong agreement with other measures of suicidality (Nock et al., 2007).

**Depressive Symptoms.**—Depressive symptoms at the end of Period 1 were assessed using the Mood and Feelings Questionnaire (MFQ; Costello & Angold, 1988), a self-report, 33-item, measure of youths’ depressive symptoms over the prior two weeks that yields a mean score of items rated on a 0 (*not true*) to 2 (*mostly true*) scale ( $\alpha = .94$ ). Four items assessing suicidal ideation were removed from the present analyses.

**Data analyses:** To examine the unique effects of each predictor on likelihood of suicide ideation and attempts, two sets of binomial logistic regression analyses were conducted. Given that suicidal ideation and attempts have been shown to consistently vary by previous suicidality, depression (O’Connor, Smyth, Ferguson, Ryan, & Williams, 2013), age (Nock et al., 2013) and race (Goldston et al., 2008), these factors were entered as *a priori* covariates.<sup>3</sup> In the first set of logistic regression analyses, suicide ideation during Period 2 was regressed onto prior ideation (Step 1), demographics (age and race) and depressive symptoms (Step 2), and acute relational victimization, targeted rejection, unspecified interpersonal and non-interpersonal objective stress (Step 3). In the second set of logistic regression analyses, suicide attempts during Period 2 were regressed on prior ideation and attempts (Step 1), and the other predictors in the same order.

## Results

### Preliminary Analysis

Descriptive statistics are reported in Table 1. Approximately 59 (36.2%) and 12 (7.4%) participants reported suicidal ideation and attempts, respectively, during Period 1. Further, 47 (28.8%) and 11 (6.7%) participants reported suicidal ideation and suicide attempts, respectively, during Period 2. Regarding life stress, a total of 1,149 major life events were identified ( $M = 7.05$  events per participant). Of these events, 72.7% were interpersonal in nature and 27.3% were non-interpersonal. Additionally, 40.5% of the sample reported at least one major relational victimization event, and 25.2% reported at least one major targeted rejection event in the prior nine months. On average, participants reported 1.76 acute relational victimization events, 1.14 targeted rejection events, and 5.88 non-specified interpersonal events. Relational victimization and targeted rejection comprised 13.1% of the acute interpersonal stressors in this study. Among events coded as targeted rejection, 71.0%

<sup>3</sup>Given the importance of identifying factors that confer risk for suicide ideation and behavior above and beyond the effects of depressive symptoms, analyses controlled for depressive symptoms as a covariate. However, given the dependent nature of interpersonal stressors, it is also possible that controlling for depression may alter the effects of interpersonal stress in this model. Thus, analyses were conducted removing depressive symptoms as a covariate. The significance and findings remained unchanged.

involved a romantic partner, 24.2% involved friends, 1.6% were parental, and 1.6% involved other adults. Findings indicated that there were no significant differences in the objective (team-rated) severity of relational victimization ( $M = 3.01$ ,  $SD = 0.59$ ) versus targeted rejection life events ( $M = 3.03$ ;  $SD = 0.48$ ;  $t(164) = 0.20$ ,  $p = .84$ ,  $d = -.037$ ). As such, differences in their links to suicide outcomes can be attributed to social-psychological characteristics as opposed to basic differences in severity. Notably, objective stress ratings for non-specified interpersonal stressors ( $M = 2.51$ ;  $SD = 0.91$ ) and for non-interpersonal stressors ( $M = 2.41$ ;  $SD = 0.97$ ) were significantly lower than for relational victimization,  $t(1243) = 5.57$ ,  $p = .0001$ ,  $d = -.652$  and  $t(714) = 6.195$ ,  $p = .0001$ ,  $d = -.747$ , respectively, and for targeted rejection,  $t(1201) = 4.4987$ ,  $p = .0001$ ,  $d = -.715$  and  $t(672) = 5.01$ ,  $p = .0001$ ,  $d = .106$ , respectively.

### Prediction of Suicide ideation

Prior suicidal ideation and higher levels of self-reported depressive symptoms were significantly associated with greater odds of subsequent suicidal ideation (Table 2). Contrary to study hypotheses, major life events, including relational victimization, targeted rejection, non-specific interpersonal, and non-interpersonal stressors, were not significantly associated with increased odds of subsequent suicidal ideation after controlling for depressive symptoms.

### Prediction of Suicide attempts

Greater relational victimization, but not other forms of stress, significantly predicted greater odds of subsequent suicide attempts, even while adjusting for prior suicidal ideation, attempts, and depressive symptoms (Table 3)<sup>4</sup>.

## Discussion

This study examined links between types of stressful life events and suicidal ideation and attempts among at-risk adolescent females, focusing on specific types of interpersonal stressors that may influence risk for suicidality. Greater relational victimization, but not targeted rejection, significantly predicted greater odds of suicide attempts in the subsequent 9 months, demonstrating a prospective association between relational victimization and suicide attempts that has been previously observed contemporaneously (Dempsey et al., 2011; Geoffroy et al., 2016; Heilbron & Prinstein, 2010; Undheim, 2013). Findings are notable given the remarkable dearth of factors revealed to predict suicide attempts after controlling for ideation and depressive symptoms (Franklin et al., 2017).

Findings suggest that relational victimization may be especially relevant to adolescent females' suicidal behavior. Given the importance of peers as a primary social context during this period (Prinstein & Giletta, 2016), exposure to relational aggression could invoke

<sup>4</sup>Diagnostics for logistic regression were performed by evaluating (1) linearity between predictors and logit transformation of suicide ideation/attempts (Box-Tidwell procedure); (2) absence of multicollinearity (Tolerance > .20 and Variance Inflation Factors < 5); and (3) absence of significant outliers (studentized residual values > 2.5). All assumptions were satisfied, with the exception of one outlier revealed for relational victimization objective stress scores; this score was winsorized. Analyses were also conducted examining each type of stressor as an individual predictor of suicide ideation and attempts, after controlling for prior suicidality, demographics and depressive symptoms. No change in results were revealed.



considerable social pain. Although targeted rejection is similarly associated with loss, threat, and devaluation by a member of one's social group (Slavich et al., 2009), targeted rejection presumes the presence of skills to establish a significant relationship, such as a "best friend" or romantic partner. Further, targeted rejection in the present study was often experienced from a single social partner, most often a romantic partner. As such, it may be that adolescents who experience targeted rejection have additional social supports (i.e., friends) in place that can buffer against its effects.

Although significant bivariate effects were revealed in correlations among each form of life stress and suicide ideation, neither relational victimization nor targeted rejection remained a significant predictor after accounting for prior ideation and depressive symptoms. Results are broadly consistent with prior research suggesting that many risk factors are most relevant as predictors of suicide ideation via depressive symptoms, yet some specific stressors act as a precipitant or catalyst for suicidal behavior in the presence of additional risk factors (Bagge, Glenn, & Lee, 2013).

Future work should be guided by several study limitations. First, longitudinal work on adolescent suicide is rare, and this study offered an important advance by examining prospective associations. Yet, methods such as ecological momentary assessment may help to further understand immediate short-term risks and immediate consequences of interpersonal stress (Franklin et al., 2017). Additionally, although research predicting suicide attempts is relatively rare, more work is needed to validate these findings with bigger sample sizes of suicide attempters. Future work examining specific life stressor categories also may benefit from further assessments regarding the intent or motive of aggressive provocateurs, noting that these factors may be difficult for adolescent victims to report. Future work also may consider examining other types of interpersonal stressors (e.g., death, conflict, etc.) that may be relevant predictors of suicide and possibly conducting factor analyses from checklist measures to validate the categories of interpersonal stress used in this study. Finally, the participants in the present study were females at-risk for experiencing suicidal thoughts and behaviors, but further work on males and subtypes of suicide attempters (i.e., chronically depressed vs. impulsive) is also needed.

In sum, this study offers a new direction for suicide research by examining specific types of acute, interpersonal life events most relevant for adolescent girls' suicidal ideation and attempts. Findings suggest that practitioners may consider early screening for relational victimization to better identify clients at high risk for suicide attempts.

## References

- Arango A, Opperman KJ, Gipson PY, & King CA (2016). Suicidal ideation and suicide attempts among youth who report bully victimization, bully perpetration and/or low social connectedness. *Journal of Adolescence*, 51, 19–29. doi: 10.1016/j.adolescence.2016.05.003 [PubMed: 27262934]
- Bagge CL, Glenn CR, & Lee H-J (2013). Quantifying the impact of recent negative life events on suicide attempts. *Journal of Abnormal Psychology*, 122(2), 359–368. doi: 10.1037/a0030371 [PubMed: 23088374]
- Barzilay S, Brunstein Klomek A., Apter A, Carli V, Wasserman C, Hadlaczky G, ... Wasserman D (2017). Bullying victimization and suicide ideation and behavior among adolescents in Europe: A

- 10-country study. *Journal of Adolescent Health*, 61(2), 179–186. doi: 10.1016/j.jadohealth.2017.02.002 [PubMed: 28391968]
- Boeninger DK, Masyn KE, Feldman BJ, & Conger RD (2010). Sex differences in developmental trends of suicide ideation, plans, and attempts among European American adolescents. *Suicide and Life-Threatening Behavior*, 40(5), 451–464. doi: 10.1521/suli.2010.40.5.451 [PubMed: 21034208]
- Brown GW, & Harris T (1978). Social origins of depression: A reply. *Psychological Medicine*, 8(4), 577–588. doi: 10.1017/S0033291700018791 [PubMed: 724871]
- Centers for Disease Control and Prevention. (2014). Youth Risk Behavior Surveillance—United States, 2014. Morbidity and Mortality Weekly Report: Surveillance Summary, 55(SS-5), 1–108.
- Costello EJ, & Angold A (1988). Scales to assess child and adolescent depression: Checklists, screens, and nets. *Journal of the American Academy of Child & Adolescent Psychiatry*, 27(6), 726–737. doi: 10.1097/00004583-198811000-00011 [PubMed: 3058677]
- Crick NR, & Grotpeter JK (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development*, 66(3), 710–722. doi: 10.2307/1131945 [PubMed: 7789197]
- Daniel SS, Goldston DB, Erkanli A, Heilbron N, & Franklin JC (2017). Prospective study of major loss life events and risk for suicidal thoughts and behaviors among adolescents and young adults. *Suicide and Life-Threatening Behavior*, 47(4), 436–449. doi: 10.1111/sltb.12305 [PubMed: 27862201]
- Dempsey AG, Haden SC, Goldman J, Sivinski J, & Wiens BA (2011). Relational and overt victimization in middle and high schools: Associations with self-reported suicidality. *Journal of School Violence*, 10(4), 374–392. doi: 10.1080/15388220.2011.602612
- Donald M, Dower J, Correa-Velez I, & Jones M (2006). Risk and protective factors for medically serious suicide attempts: A comparison of hospital-based with population-based samples of young adults. *Australian and New Zealand Journal of Psychiatry*, 40(1), 87–96. doi: 10.1111/j.1440-1614.2006.01747.x [PubMed: 16403044]
- Franklin JC, Ribeiro JD, Fox KR, Bentley KH, Kleiman EM, Huang X, ... Nock MK (2017). Risk factors for suicidal thoughts and behaviors: A meta-analysis of 50 years of research. *Psychological Bulletin*, 143(2), 187–232. doi: 10.1037/bul0000084 [PubMed: 27841450]
- Geoffroy M-C, Boivin M, Arseneault L, Turecki G, Vitaro F, Brendgen M, ... Côté SM (2016). Associations between peer victimization and suicidal ideation and suicide attempt during adolescence: Results from a prospective population-based birth cohort. *Journal of the American Academy of Child & Adolescent Psychiatry*, 55(2), 99–105. doi: 10.1016/j.jaac.2015.11.010 [PubMed: 26802776]
- Gini G, Card NA, & Pozzoli T (2017). A meta-analysis of the differential relations of traditional and cyber-victimization with internalizing problems. *Aggressive Behavior* doi: 10.1002/ab.21742
- Goldston DB, Molock SD, Whitbeck LB, Murakami JL, Zayas LH, & Hall GCN (2008). Cultural considerations in adolescent suicide prevention and psychosocial treatment. *American Psychologist*, 63(1), 14–31. doi: 10.1037/0003-066X.63.1.14 [PubMed: 18193978]
- Heilbron N, & Prinstein MJ (2010). Adolescent peer victimization, peer status, suicidal ideation, and nonsuicidal self-injury. *Merrill-Palmer Quarterly*, 56(3), 388–419. doi: 10.1353/mpq.0.0049 [PubMed: 30147215]
- Helms SW, & Prinstein MJ (2014). Risk assessment and decision making regarding imminent suicidality in pediatric settings. *Clinical Practice in Pediatric Psychology*, 2(2), 176–193. doi: 10.1037/cpp0000048
- Holt MK, Vivolo-Kantor AM, Polanin JR, Holland KM, DeGue S, Matjasko JL, ... Reid G (2015). Bullying and suicidal ideation and behaviors: A meta-analysis. *Pediatrics*, 135(2), e496–e509. doi: 10.1542/peds.2014-1864 [PubMed: 25560447]
- Kaufman J, Birmaher B, Brent D, & Rao U (1997). Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime version (K-SADS-PL): Initial reliability and validity data. *Journal of the American Academy of Child & Adolescent Psychiatry*, 36(7), 980–988. doi: 10.1097/00004583-199707000-00021 [PubMed: 9204677]
- King CA, & Merchant CR (2008). Social and interpersonal factors relating to adolescent suicidality: A review of the literature. *Archives of Suicide Research*, 12(3), 181–196. doi: 10.1080/13811110802101203 [PubMed: 18576200]

- Klomek AB, Marrocco F, Kleinman M, Schonfeld IS, & Gould MS (2008). Peer victimization, depression, and suicidality in adolescents. *Suicide and Life-Threatening Behavior*, 38(2), 166–180. doi: 10.1521/suli.2008.38.2.166 [PubMed: 18444775]
- Liu RT, & Miller I (2014). Life events and suicidal ideation and behavior: a systematic review. *Clin Psychol Rev*, 34(3), 181–192. doi: 10.1016/j.cpr.2014.01.006 [PubMed: 24534642]
- Monroe SM, & Hadjiyannakis K (2002). The social environment and depression: Focusing on severe life stress. In Gotlib IH, Hammen CL, Gotlib IH, & Hammen CL (Eds.), *Handbook of depression* (pp. 314–340). New York, NY, US: Guilford Press.
- Monroe SM, Slavich GM, & Georgiades K (2009). The social environment and life stress in depression. In Gotlib IH, Hammen CL, Gotlib IH, & Hammen CL (Eds.), *Handbook of depression* (2nd ed.). (pp. 340–360). New York, NY, US: Guilford Press.
- Murphy MLM, Slavich GM, Chen E, & Miller GE (2015). Targeted rejection predicts decreased anti-inflammatory gene expression and increased symptom severity in youth with asthma. *Psychological Science*, 26(2), 111–121. doi: 10.1177/0956797614556320 [PubMed: 25564524]
- Nock MK, Green JG, Hwang I, McLaughlin KA, Sampson NA, Zaslavsky AM, & Kessler RC (2013). Prevalence, correlates, and treatment of lifetime suicidal behavior among adolescents: Results from the National Comorbidity Survey Replication Adolescent Supplement. *JAMA Psychiatry*, 70(3), 300–310. doi: 10.1001/2013.jamapsychiatry.55 [PubMed: 23303463]
- Nock MK, Holmberg EB, Photos VI, & Michel BD (2007). Self-Injurious Thoughts and Behaviors Interview: Development, reliability, and validity in an adolescent sample. *Psychological Assessment*, 19(3), 309–317. doi: 10.1037/1040-3590.19.3.309 [PubMed: 17845122]
- Nock MK, & Kessler RC (2006). Prevalence of and risk factors for suicide attempts versus suicide gestures: Analysis of the National Comorbidity Survey. *Journal of Abnormal Psychology*, 115(3), 616–623. doi: 10.1037/0021-843X.115.3.616 [PubMed: 16866602]
- O'Connor RC, Smyth R, Ferguson E, Ryan C, & Williams JMG (2013). Psychological processes and repeat suicidal behavior: A four-year prospective study. *Journal of Consulting and Clinical Psychology*, 81(6), 1137–1143. doi: 10.1037/a0033751 [PubMed: 23855989]
- Ostrov JM, Blakely-McClure SJ, Perry KJ, & Kamper-DeMarco KE (in press). Definitions--The form and function of relational aggression. In Coyne SM & Ostrov JM (Eds.), *The development of relational aggression* (1–26). New York, NY: Oxford University Press.
- Prinstein MJ (2003). Social factors: Peer relationships. In Spirito A, Overholser JC, Spirito A, & Overholser JC (Eds.), *Evaluating and treating adolescent suicide attempters: From research to practice* (pp. 191–213). San Diego, CA, US: Academic Press.
- Prinstein MJ, & Giletta M (2016). Peer relations and developmental psychopathology. In Cicchetti D & Cicchetti D (Eds.), *Developmental psychopathology: Theory and method* (pp. 527–579). Hoboken, NJ, US: John Wiley & Sons Inc.
- Reynolds CR, & Kamphaus RW (1992). *BASC: Behavior Assessment System for Children: Manual*. Circle Pines: American Guidance Service.
- Rose AJ, & Rudolph KD (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin*, 132(1), 98–131. doi: 10.1037/0033-2909.132.1.98 [PubMed: 16435959]
- Rudolph KD, & Flynn M (2007). Childhood adversity and youth depression: Influence of gender and pubertal status. *Development and Psychopathology*, 19(2), 497–521. doi: 10.1017/S0954579407070241 [PubMed: 17459181]
- Rudolph KD, Troop-Gordon W, Monti JD, & Miernicki ME (2014). Moving against and away from the world: The adolescent legacy of peer victimization. *Development and Psychopathology*, 26(3), 721–734. doi: 10.1017/S0954579414000340 [PubMed: 25047294]
- Shih JH, Eberhart NK, Hammen CL, & Brennan PA (2006). Differential Exposure and Reactivity to Interpersonal Stress Predict Sex Differences in Adolescent Depression. *Journal of Clinical Child and Adolescent Psychology*, 35(1), 103–115. doi: 10.1207/s15374424jccp3501\_9 [PubMed: 16390306]
- Slavich GM, Thornton T, Torres LD, Monroe SM, & Gotlib IH (2009). Targeted rejection predicts hastened onset of major depression. *Journal of Social and Clinical Psychology*, 28(2), 223–243. doi: 10.1521/jscp.2009.28.2.223 [PubMed: 20357895]

- Somerville LH (2013). The teenage brain: Sensitivity to social evaluation. *Current Directions in Psychological Science*, 22(2), 121–127. doi: 10.1177/0963721413476512 [PubMed: 24761055]
- Stewart JG, Valeri L, Esposito EC, & Auerbach RP (2017). Peer Victimization and Suicidal Thoughts and Behaviors in Depressed Adolescents. *J Abnorm Child Psychol* doi: 10.1007/s10802-017-0304-7
- Tsypes A, & Gibb BE (2015). Peer Victimization Mediates the Impact of Maternal Depression on Risk for Suicidal Ideation in Girls but not Boys: A Prospective Study. *J Abnorm Child Psychol*, 43(8), 1439–1445. doi: 10.1007/s10802-015-0025-8 [PubMed: 25911195]
- Uliaszek AA, Zinbarg RE, Mineka S, Craske MG, Griffith JW, Sutton JM, ... Hammen C (2012). A longitudinal examination of stress generation in depressive and anxiety disorders. *Journal of Abnormal Psychology*, 121(1), 4–15. doi: 10.1037/a0025835 [PubMed: 22004114]
- Undheim AM (2013). Involvement in bullying as predictor of suicidal ideation among 12- to 15-year-old Norwegian adolescents. *European Child & Adolescent Psychiatry*, 22(6), 357–365. doi: 10.1007/s00787-012-0373-7 [PubMed: 23361192]
- van Dulmen MHM, Klipfel KM, Mata AD, Schinka KC, Claxton SE, Swahn MH, & Bossarte RM (2012). Cross-lagged effects between intimate partner violence victimization and suicidality from adolescence into adulthood. *Journal of Adolescent Health*, 51(5), 510–516. doi: 10.1016/j.jadohealth.2012.02.015 [PubMed: 23084174]

**Table 1.**

Summary of descriptive statistics and intercorrelations between study variables.

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Age	–										
2. Minority status	-.05	–									
3. Period 1 Depressive symptoms	.21**	-.04	–								
4. Period 1 Suicide Ideation	.20**	-.13	.38**	–							
5. Period 1 Suicide Attempt	.07	-.07	.23**	.37**	–						
6. Period 1 Rel. victimization	.02	-.07	.18*	.10	.01	–					
7. Period 1 Targeted rejection	.13	-.09	.14	.18*	.12	.23**	–				
8. Period 1 Interpersonal (other)	.22**	-.10	.33**	.17*	.15	.05	.15	–			
9. Period 1 Non-interpersonal	.33**	-.11	.35**	.23**	.29**	.08	.09	.27**	–		
10. Period 2 Suicide Ideation	.06	-.10	.36**	.37**	.34**	.03	.18*	.20*	.10	–	
11. Period 2 Suicide Attempt	.11	-.11	.23**	.16	.30**	.19*	.09	.09	.18*	.42**	–
mean (SD) / n (%)	14.63(1.40)	61(37.40)	12.00(10.69)	59(36.20)	12(7.40)	1.76(2.62)	1.14(2.39)	12.90(10.26)	5.88(1.89)	47(29.40)	11(6.7)

Note:

\*  
 $p < .05$ 

\*\*

 $p < .01$ 

\*\*\*

 $p < .001$ .

Rel. victimization= relational victimization. Pearson correlations are reported for age, depressive symptoms, relational victimization, targeted rejection, interpersonal (other), and non-interpersonal stressors. Spearman correlations are reported for minority status, Period 1 and Period 2 suicidal ideation, and Period 1 and Period 2 suicide attempt

**Table 2.**

Multivariate logistic regression analyses predicting Period 2 suicide ideation for different types of life events.

Predictor	$\chi^2$ (df)	<i>b</i> ( <i>SE</i> )	OR	95% CI	<i>p</i>
Step 1	21.502(1)				
Prior Suicide Ideation (Period 1)		1.332(.420)	3.789	1.662 – 8.637	.002**
Step 2	31.710(4)				
Age		–1.28(.159)	.880	.644 – 1.201	.428
Minority Status		–.307(.421)	.736	.322 – 1.680	.466
Depressive Symptoms (Period 1)		.059(.021)	1.061	1.018 – 1.107	.005**
Step 3	36.002(8)				
Total Acute Non-Interpersonal Stress (Period 1)		–.032(.038)	.968	.898 – 1.044	.401
Total Acute Interpersonal (Other) Stress (Period 1)		.023(.020)	1.024	.984 – 1.065	.246
Total Acute Relational Victimization Stress (Period 1)		–.082(.090)	.921	.772 – 1.099	.363
Total Acute Targeted Rejection Stress (Period 1)		.100(.081)	1.105	.943 – 1.295	.217

Note:

\*  
 $p < .05$ \*\*  
 $p < .01$ \*\*\*  
 $p < .001$ .

SE = standard error.



**Table 3.**

Multivariate logistic regression analyses predicting Period 2 suicide attempts for different types of life events.

Predictor	$\chi^2$ (df)	<i>b</i> ( <i>SE</i> )	OR	95% CI	<i>p</i>
Step 1	8.919(2)				
Prior Suicide Ideation (Period 1)		-.472(.972)	.624	.093 – 4.196	.628
Prior Suicide Attempt (Period 1)		2.397(1.064)	10.995	1.366 – 88.520	.024*
Step 2	14.028(5)				
Age		.239(.327)	1.269	.669 – 2.410	.466
Minority Status		-.951(.852)	.386	.073 – 2.410	.264
Depressive Symptoms (Period 1)		.048(.035)	1.049	.979 – 1.124	.172
Step 3	18.556(9)				
Total Acute Non-Interpersonal Stress (Period 1)		-.019(.064)	.981	.866 – 1.113	.771
Total Acute Interpersonal (Other) Stress (Period 1)		-.002(.039)	1.002	.928 – 1.081	.962
Total Acute Relational Victimization Stress (Period 1)		.271(.134)	1.311	1.008 – 1.706	.044*
Total Acute Targeted Rejection Stress (Period 1)		-.022(.122)	1.023	.805 – 1.299	.854

Note:

\*  
 $p < .05$ \*\*  
 $p < .01$ \*\*\*  
 $p < .001$ .

SE = standard error.